

**This Page is Inserted by IFW Indexing and Scanning  
Operations and is not part of the Official Record**

**BEST AVAILABLE IMAGES**

Defective images within this document are accurate representations of the original documents submitted by the applicant.

Defects in the images include but are not limited to the items checked:

- BLACK BORDERS**
- IMAGE CUT OFF AT TOP, BOTTOM OR SIDES**
- FADED TEXT OR DRAWING**
- BLURRED OR ILLEGIBLE TEXT OR DRAWING**
- SKEWED/SLANTED IMAGES**
- COLOR OR BLACK AND WHITE PHOTOGRAPHS**
- GRAY SCALE DOCUMENTS**
- LINES OR MARKS ON ORIGINAL DOCUMENT**
- REFERENCE(S) OR EXHIBIT(S) SUBMITTED ARE POOR QUALITY**
- OTHER:** \_\_\_\_\_

**IMAGES ARE BEST AVAILABLE COPY.**

**As rescanning these documents will not correct the image problems checked, please do not report these problems to the IFW Image Problem Mailbox.**



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/689,902	10/13/2000	KENJI SOGA	PNDF-00108	1084
466	7590	08/13/2004	EXAMINER	
YOUNG & THOMPSON			DUONG, THOMAS	
745 SOUTH 23RD STREET 2ND FLOOR				
ARLINGTON, VA 22202			ART UNIT	PAPER NUMBER
			2143	

DATE MAILED: 08/13/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

RECEIVED

AUG 18 2004

Technology Center 2100

<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>	
	09/689,902	SOGA, KENJI	
	<b>Examiner</b>	<b>Art Unit</b>	
	Thomas Duong	2143	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### **Status**

- 1) Responsive to communication(s) filed on 03 May 2004.
- 2a) This action is **FINAL**.                            2b) This action is non-final.
- 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### **Disposition of Claims**

- 4) Claim(s) 1-5 is/are pending in the application.
  - 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) Claim(s) \_\_\_\_\_ is/are allowed.
- 6) Claim(s) 1-5 is/are rejected.
- 7) Claim(s) \_\_\_\_\_ is/are objected to.
- 8) Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### **Application Papers**

- 9) The specification is objected to by the Examiner.
- 10) The drawing(s) filed on \_\_\_\_\_ is/are: a) accepted or b) objected to by the Examiner.
 

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### **Priority under 35 U.S.C. § 119**

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
  - a) All    b) Some \* c) None of:
    1. Certified copies of the priority documents have been received.
    2. Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
    3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### **Attachment(s)**

1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)	4) <input type="checkbox"/> Interview Summary (PTO-413)
2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)	Paper No(s)/Mail Date. _____
3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____	5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)
	6) <input type="checkbox"/> Other: _____

## DETAILED ACTION

### ***Response to Amendment***

1. This office action is in response to the amendment filed on March 3, 2004. The amendment filed on March 3, 2004 has been entered and made of record. The original application contained *claims 1-5*. In the amendment filed on March 3, 2004, the Applicants amended *claims 1 and 4-5*. There are *no claims* allowed. Hence, *claims 1-5* are presented for further consideration and examination.

### ***Specification***

2. Applicant is reminded of the proper language and format for an abstract of the disclosure.

The abstract should be in narrative form and generally limited to a single paragraph on a separate sheet within the range of 50 to 150 words. It is important that the abstract not exceed 150 words in length since the space provided for the abstract on the computer tape used by the printer is limited. The form and legal phraseology often used in patent claims, such as "means" and "said," should be avoided. The abstract should describe the disclosure sufficiently to assist readers in deciding whether there is a need for consulting the full patent text for details.

The language should be clear and concise and should not repeat information given in the title. It should avoid using phrases which can be implied, such as, "The disclosure concerns," "The disclosure defined by this invention," "The disclosure describes," etc.

***Claim Rejections - 35 USC § 112***

3. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.
4. Claims 1 and 4-5 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.
5. With regards to claims 1 and 4-5, they recite the limitation "either of" which allows the Examiner to consider either of the following limitations. Please correct the language to reflect the Applicants' invention in terms of the limitations.

***Response to Argument***

6. The Applicants' arguments with respect to *claim 1* have been considered but are moot in view of the new grounds of rejection.

***Claim Rejections - 35 USC § 103***

7. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.
8. Claims 1-5 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bartolanzo et al. (US005321815A) in view of Yaakov (US006748433B1).
9. With regard to claims 1-5, Bartolanzo reference discloses,
  - *determining a set of plural routes starting from each of said plural ingress nodes, via said plural connection nodes, to said common egress node;* (Bartolanzo, col.4, line 51 – col.5 line 28; modules 24-28, fig.2; Bartolanzo teaches of a step

where plurality of routes from originating network nodes to destination network nodes are determined)

- *successively selecting said routes in reverse order of said scores of said routes,* (Bartolanzo, col.4, lines 32-50; col.5, lines 40-48; col.6, line 52 – col.7, line 13; Bartolanzo teaches of a step where routing trees are built from adding nodes or other routes)
- *respectively generating a first tree, extending from at least two of said plural ingress nodes to said common egress node, from said route with a lowest score and said other routes based on shared routings, along said route and said other routes, to the common egress node, and* (Bartolanzo, col.4, lines 32-50; col.5, lines 40-48; col.6, line 52 – col.7, line 13; Bartolanzo teaches of a step where routing trees are built from adding nodes or other routes)
- *successively generating other trees, extending from at least one of said plural ingress nodes to said common egress node, from said other routes which are unable to generate said first tree, based on shared routings along said other routes to the common egress node,* (Bartolanzo, col.4, lines 32-50; col.5, lines 40-48; col.6, line 52 – col.7, line 13; Bartolanzo teaches of a step where routing trees are built from adding nodes or other routes)

However, Bartolanzo reference does not explicitly disclose

- *adding predetermined point to score a route successively selected from said set of plural routes,*
- *wherein said step of adding said predetermined point to said score of said selected route is carried out whenever either of*

- *a first condition that any node, except said egress node, in a selected route does not appear on another route, and,*

Yaakov teaches

- *adding predetermined point to score a route successively selected from said set of plural routes, (Yaakov, col.2, lines 41-67; Yaakov suggests of a step where scores are assigned to individual routes before determining the most optimal route)*
- *wherein said step of adding said predetermined point to said score of said selected route is carried out whenever either of*
  - *a first condition that any node, except said egress node, in a selected route does not appear on another route, and, (Yaakov, col.2, lines 41-67; col.4, lines 27-33; col.10, lines 8-24; Yaakov suggests of a step where scores are assigned to individual routes before determining the most optimal route)*

It would have been obvious to one of ordinary skill in the art at the time of the invention was made to combine the Yaakov reference with the Bartolanzo reference to determine the most optimal route in a network by assigning score or point to individual routes. Furthermore, it is well known in the art that routing trees are formed from methods such as spanning-tree or shortest path. These methods have already taken into accounts of eliminating redundant intermediary nodes in determining the best possible routes from an originating node to a destination node.

### ***Conclusion***

10. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a). A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

11. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Thomas Duong whose telephone number is 703/305-1886. The examiner can normally be reached on M-F 7:30AM - 4:00PM. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David A Wiley can be reached on 703/308-5221. The fax phone numbers for the organization where this application or proceeding is assigned are 703/872-9306 for regular communications and 703/872-9306 for After Final communications. Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703/305-3900.

Thomas Duong (AU2143)

August 5, 2004



DAVID WILEY  
SUPERVISORY PATENT EXAMINER  
TECHNOLOGY CENTER 2100

<b>Notice of References Cited</b>	Application/Control No.	Applicant(s)/Patent Under Reexamination	
	09/689,902	SOGA, KENJI	
	Examiner	Art Unit	Page 1 of 1
	Thomas Duong	2143	

**U.S. PATENT DOCUMENTS**

*		Document Number Country Code-Number-Kind Code	Date MM-YYYY	Name	Classification
	A	US-6,748,433 B1	06-2004	Yaakov, Yaron	709/224
	B	US-6,584,071 B1	06-2003	Kodialam et al.	370/238
	C	US-6,282,170 B1	08-2001	Bentall et al.	370/225
	D	US-			
	E	US-			
	F	US-			
	G	US-			
	H	US-			
	I	US-			
	J	US-			
	K	US-			
	L	US-			
	M	US-			

**FOREIGN PATENT DOCUMENTS**

*		Document Number Country Code-Number-Kind Code	Date MM-YYYY	Country	Name	Classification
	N					
	O					
	P					
	Q					
	R					
	S					
	T					

**NON-PATENT DOCUMENTS**

*	Include as applicable: Author, Title Date, Publisher, Edition or Volume, Pertinent Pages)	
	U	
	V	
	W	
	X	

\*A copy of this reference is not being furnished with this Office action. (See MPEP § 707.05(a).)  
Dates in MM-YYYY format are publication dates. Classifications may be US or foreign.